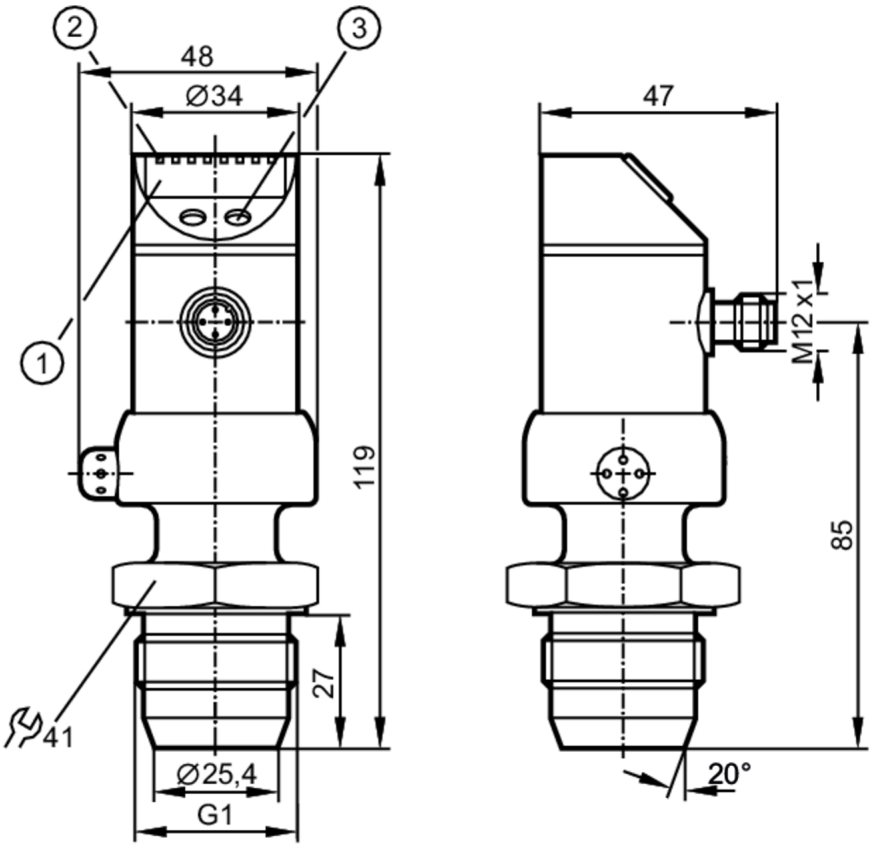
PI1694

Flush pressure sensor with display

PI-010-REA01-E-ZVG/US/ /P

phase-out article

Alternative articles: PI2894 or PI2794
When selecting an alternative article and accessories please note that technical data may differ!



1 alphanumeric display 4-digit
2 status LEDs
3 programming button

EC 1935/2004 EHEDG Tested

Product characteristics				
Number of inputs and outputs		Number of analogue outputs: 1		
Measuring range		-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection		threaded connection G 1 external thread sealing cone		
Application				
Special feature		Gold-plated contacts		
Application		flush mountable for the food and beverage industry		
Installation		freely rotatable housing 350°		
Media		viscous media and liquids with suspended particles; liquids and gases		
Medium temperature	[°C]	-25...125; (145 max. 1h)		
Min. bursting pressure		150 bar	2175 psi	15 MPa
Pressure rating		50 bar	725 psi	5 Mpa
Type of pressure		relative pressure		
No dead space		yes		

PI1694

Flush pressure sensor with display

PI-010-REA01-E-ZVG/US/ /P

Electrical data				
Operating voltage	[V]	20...32 DC		
Min. insulation resistance	[MΩ]	100; (500 V DC)		
Protection class		III		
Reverse polarity protection		yes		
Power-on delay time	[s]	0.5		
Switch-on peak current	[mA]	6		
Switch-on peak current duration	[ms]	30		
Integrated watchdog		yes		
Inputs / outputs				
Number of inputs and outputs		Number of analogue outputs: 1		
Outputs				
Total number of outputs		1		
Output signal		analogue signal		
Number of analogue outputs		1		
Analogue current output	[mA]	4...20, invertible; (scalable 1:4)		
Max. load	[Ω]	300		
Overload protection		yes		
Measuring/setting range				
Measuring range		-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Analogue start point		-1...7.25 bar	-14.5...105.1 psi	-0.1...0.725 MPa
Analogue end point		1.75...10 bar	25.4...145 psi	0.175...1 MPa
In steps of		0.01 bar	0.1 psi	0.001 MPa
Factory setting			ASP = 0.00 bar	AEP = 10.00 bar
Accuracy / deviations				
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)		
Characteristics deviation	[% of the span]	< ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)		
Linearity deviation	[% of the span]	< ± 0,15; (Turn down 1:1)		
Hysteresis deviation	[% of the span]	< ± 0,15; (Turn down 1:1)		
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per year)		
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,05; (0...70 °C)		
Temperature coefficient span	[% of the span / 10 K]	< ± 0,15; (0...70 °C)		
Response times				
Damping for the analogue output dAA	[s]	0.1...100		
Max. response time analogue output	[ms]	40		

PI1694

Flush pressure sensor with display

PI-010-REA01-E-ZVG/US/ /P

Software / programming			
Parameter setting options		zero point; span	
Operating conditions			
Ambient temperature	[°C]	-25...80	
Storage temperature	[°C]	-40...100	
Protection		IP 67; IP 69K	
Tests / approvals			
EMC		EN 61000-4-2 ESD	4 kV CD / 8 kV AD
		EN 61000-4-3 HF radiated	10 V/m
		EN 61000-4-4 Burst	2 kV
		EN 61000-4-5 Surge	0,5/1 kV
		EN 61000-4-6 HF conducted	10 V
Shock resistance		DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[years]	238	
Mechanical data			
Weight	[g]	440.8	
Materials		stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE	
Materials (wetted parts)		ceramics (99.9 % Al2O3); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles		100 million	
Process connection		threaded connection G 1 external thread sealing cone	
Displays / operating elements			
Display		Display unit	4 x LED, green
		function display	alphanumeric display, 4-digit
		measured values	alphanumeric display, 4-digit
Display unit		bar; psi; MPa; % of the span	
Remarks			
Remarks		The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.	
Pack quantity		1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated

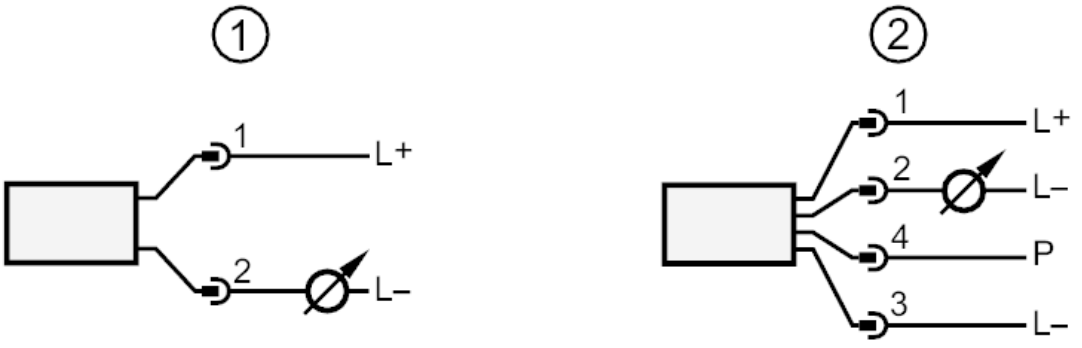


PI1694

Flush pressure sensor with display

PI-010-REA01-E-ZVG/US/ /P

Connection



1: normal operation
2: programming operation (P = communication via EPS / FDT interface)